



***Back to and Fast Forward to Nature:  
Considering Sustainable Environments***

**IDEC Pacific West Regional Conference**

*Bozeman, MT. October 29 – November 1, 2008*

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## EVENT SCHEDULE

### October 29, Wednesday

4:00-6:00 Registration at Gallatin Gateway Inn, Gallatin Gateway, MT  
Welcome cheese platter and no host bar  
Pick up Fairchild Books bag of conference information; books; Gallatin Gateway's Stacey's Old Faithful Bar & Steakhouse menu; Bozeman Public Library, LEED Silver information; event information; historical maps; reception hosts' brochures; and much more  
Dinner on your own at the Gallatin Gateway Inn, Gallatin Gateway eateries, or Bozeman restaurants\*\*—best to make reservations

### October 30, Thursday

7:00-9:00 Continental Breakfast at the colonnade, Gallatin Gateway Inn

9:00-10:15 Welcome and Keynote Speaker: Lynn M. Jones, IIDA, IDEC, Graduate Coordinator of Interior Design/Professor, Brenau University, Gainesville, Georgia and part-time resident of Montana  
"The Need for Green" at Gallatin Gateway Inn conference room

10:15-10:30 Break. Display of interior design books; "Go Green: How to Build an Earth-Friendly Community," a signed copy by Nancy H. Taylor at \$13. \* and nature/design projects by School of Architecture, MSU students. \*Please pay Sherrill Halbe by check or cash if you want to buy Nancy's book.

10:30-12:00 Papers/Break at Gallatin Gateway Inn conference room

10:00 *Personalization of Living Environments: Case of Bilkent University Dormitories, Ankara, Turkey.* Sibel Seda Dazkir, Graduate Teaching Assistant; Oregon State University

10:30 *Occupant Satisfaction in a LEED-certified Building.* Amy Anderson, MS and Carol Caughey, MA; Oregon State University

11:00 *Concept in Design Process.* Nilgun Turan, PhD; Wentworth Institute of Technology

- 12:00 Lunch and Tour  
Meet bus in front of Gallatin Gateway Inn. Locally prepared regional box lunch en route to the prestigious Yellowstone Club in Big Sky, Montana with designer from Monarch Furniture & Design Group, LLC
- 5:00-7:00 Tour and reception at Big Timberworks, Gallatin Gateway, MT, a complete design build service—see lovely brochures in folder. Robin Klein of Biomimicry Institute will be attending.
- 7:00 Dinner on your own at Gallatin Gateway Inn, Gallatin Gateway eateries, or Bozeman restaurants

### **October 31, Friday**

- 7:00-9:00 Continental Breakfast at the colonnade, Gallatin Gateway Inn
- 8:30 *A Precedent Setting Precedent*  
Steven Davidson, Assistant Professor; Kansas State University
- 9:00-10:15 Tom McNab, Adjunct Assistant Professor, School of Architecture, MSU presenting his Community Design Center work with SOA/MSU students on the Yellowstone Ecological Research Center at Gallatin Gateway Inn conference room
- 10:15-10:30 Break. Display of interior design books; “Go Green: How to Build an Earth-Friendly Community,” a signed copy by Nancy H. Taylor and nature/design projects by School of Architecture, MSU students.
- 10:30-12:00 Papers/Break at Gallatin Gateway Inn conference room
- 10:30 *Feng Shui Realities, Myths and Mysteries: Interior Design Students’ Sources of Information.*  
Anubhuti Thakur, PhD; California State University Northridge
- 11:00 *Expressions are Endless, Unless I have to Express them in Nine Design Books.*  
HP Wachter; University of Oklahoma
- 11:30 *Wait, Wait, I Will Have it Done Tomorrow: Does a Major with Creative Thinking Requirements Foster Procrastination?*  
HP Wachter; University of Oklahoma

- 12:00- Lunch and Tour  
Meet bus in front of Gallatin Gateway Inn. We will pick up locally prepared regional box lunches and have a mini tour/reception at Bridger Kitchens and then be off to Artemis Institute's Remote Studio in Paradise Valley near Livingston, MT. Executive director, Lori Ryker's students will greet us with a reception and show us their designs in this innovative program.
- 5:00 Mini tour of Refuge Sustainable Building Center, Inc  
Dinner on your own in Downtown Historical Bozeman—best to make reservations. Trick or Treat watching. From Refuge, walk up Main Street. En route notice the Bozeman Public Library, LEED Silver. Also poke your head into the Zebra Lounge (Bozeman Hotel building) where the School of Architecture students are hosting their Halloween party around 8:00.
- 8:30-9:00 Bus returns to Gallatin Gateway Inn

### **November 1, Saturday**

- 7:00-9:00 Continental Breakfast at the colonnade, Gallatin Gateway Inn
- 8:30 *Understanding Native American Architecture to Develop Sustainable Environments of Tomorrow*  
Vibhavari Jani; Louisiana Tech University
- 9:00-10:15 Chris Livingston, Assistant Professor, School of Architecture, MSU will present his SOA/MSU students' sustainable designs at Gallatin Gateway Inn conference room
- 10:15-10:30 Break, Display of interior design books; "Go Green: How to Build an Earth-Friendly Community," a signed copy by Nancy H. Taylor at \$13 \* and nature/design projects by School of Architecture, MSU students. \*Please pay Sherrill Halbe by check or cash if you want to buy Nancy's book.
- 10:30-12:00 Papers/Sharing teacher techniques at Gallatin Gateway Inn conference room
- 10:00 *A Cultural Beacon: Sustaining Multigenerational Relationship and Community Through Design.*  
Amanda Simons
- 10:30 *The Role of Interior Design in Reducing Energy Use in Buildings.* Judy Theodorson, Assistant Professor, Interdisciplinary Design Institute; Washington State University Spokane

11:00        *Cultivating Culture of Compassion and Caring through Community Service: A Case Study.* Vibhavari Jani; Louisiana Tech University

12:00        Discover Montana on your own: Museum of the Rockies, walking trails, fishing blue ribbon rivers, horseback riding, biking, mountain drives, shopping, Yellowstone Park, etc.

Farewell

Many thanks to our gracious and generous speakers, sponsors, and local services.

***Kudos to Sherrill for developing an excellent conference program. It truly is inspirational!  
THANK YOU!***

**Personalization of Living Environments:  
Case of Bilkent University Dormitories, Ankara, Turkey  
Sibel Seda Dazkir**

Graduate Teaching Assistant  
Oregon State University

**Abstract**

A variety of theoretical frameworks have been discussed about how people generate meanings for their environments. Most share the idea that people attach meanings to places in various ways and the meaning process is a complex issue with many interrelated factors. Also, people express themselves by means of the kinds of products they select for themselves, their home, and their environment (Csikszentmihalyi and Rochberg-Halton, 1981). This paper explores how places become meaningful by individualizing the physical setting, and it explores the ways and purposes of this individualization process among college students living in dormitories. This study suggests individualized settings are more meaningful for their inhabitants and the individualization process is unique for each individual.

A case study was conducted among residents of dormitories at Bilkent University (Ankara, Turkey). Data were collected by means of individual, semi-structured interviews. Students' sense of belonging and attitudes towards those environments, their interest in and awareness of the physical setting and their personalization of the living environments were evaluated. After the data were coded and analyzed, different patterns were found in students' sense of belonging to those environments, their goals, and the amounts and methods of personalization of their living environments.

The interviews were conducted in two parts. The first part focused on the indoor settings outside of their living environments in order to better understand place attributes that are meaningful to them. The respondents were especially encouraged to talk about the physical setting to find out if there were any relationships between their awareness of the physical setting and their will to personalize their living environments. In the second part, they were encouraged to talk about their dormitory rooms and their homes.

The responses were coded into groups. Those were gender, age, duration of stay in dormitories, major, attributes in place meaning/preference (social or spatial attributes), sense of belonging to home, sense of belonging to dormitory, personalization of dormitory room, personalization of home (See Tables 1, 2, and 3). Those data sets were processed using Pearson's Chi-square tests. The only statistically significant relationships were found between gender - personalization of home with objects ( $p < 0.01$ ) and sense of belonging to home – personalization of home with objects ( $p < 0.05$ ). Why only those data sets were found significantly related was discussed using the responses gathered during the interviews.

This study indicated that meaning of place is unique for each individual. The same situations created different approaches and meanings for different individuals. The same positive and negative attributes were mentioned by both groups of respondents: those who developed a sense of belonging to their living environments and those who did not. Also, many respondents had emotional relationships with the objects, which they used for personalization

of the places. They used objects to contribute meanings to their living environments. Not only did they redefine the objects, but they also redefined the places with the help of these objects.

## **References**

Csikszentmihalyi, M. and Rochberg-Halton, E. (1981). *The Meaning of Things*. Cambridge: Cambridge University Press.

**Occupant Satisfaction in a LEED-Certified Building**  
**Amy Anderson, MS and Carol Caughey, MA**  
Oregon State University

Studies (Heerwagen, 2003; Heerwagen, 2005; Samet, 2003) have shown the benefits of sustainable buildings for human health and on the environment, but few assess the satisfaction of the occupants of buildings designed using sustainable practices. According to Clements-Croome and Baizhan (2000) more occupants report a greater impact on productivity from dissatisfaction with their physical work environment than from job dissatisfaction or job stress. Organizations with satisfied employees typically have higher employee retention, higher productivity, lower operating costs, and lower ongoing capital costs (Corps, 2005). This study evaluates occupant satisfaction in a LEED certified facility, henceforth called the Engineering Center, on the campus of a western US university. These results are compared with the results of a pre-survey of the same population before they moved into the building. The new building houses laboratories, classrooms, and offices for graduate students and faculty. Completed in August 2005, the Engineering Center was certified LEED Gold by the United States Green Building Council and is the “greenest” academic engineering building in the United States.

Both the pre-survey (n=30) and the post-occupancy evaluation (n=22) utilized responses based on a Likert scale and were disseminated on-line. The following elements of buildings that are customarily considered to contribute to occupant satisfaction were explored: acoustics, thermal comfort, indoor air quality (IAQ), lighting, and space.

Results of the post-occupancy survey (see Figure 2) indicated that:

- 1) Compared with a satisfaction rate of 37% in the pre-test, overall occupant satisfaction with the Engineering Center was 59%.
- 2) Only 9% of respondents were satisfied with thermal comfort, and 4% with the acoustics in the new building.
- 3) Occupant satisfaction with indoor air quality in the green building was 41%, compared with 37% in the pre-test (see Figures 1 and 2).

There is no evidence to support the conclusion that the low levels of satisfaction with acoustics and thermal comfort were attributable to the use of sustainable building practices and materials. Instead results indicate that participants were satisfied with sustainable aspects, including indoor air quality and amount of daylighting, though this varied with location of the offices (see Figure 5). Dissatisfaction appears to be a result of poor building layout, inappropriate HVAC system configuration, and lack of understanding by the end users of how the system works.

Three open-ended questions were included in both on-line surveys, and representative responses (see Figures 3 and 4) will be discussed in the presentation.

It is possible to design and construct buildings for LEED certification without satisfying the occupants with the ambient conditions of the facility. This creates a scenario whereby a cost-

effective, energy-efficient, environmentally friendly facility could actually cost the owner more than would a traditional building. Occupants who are dissatisfied with their built environment may be less productive employees (Clements-Croome & Baizhan, 2000), less concerned with supporting the sustainability aspects of the facility (*e.g.*, recycling, turning off lights when not in use), and possibly more apt to seek employment elsewhere.

# The Engineering Center survey results: Figures

## Pre-occupancy Results

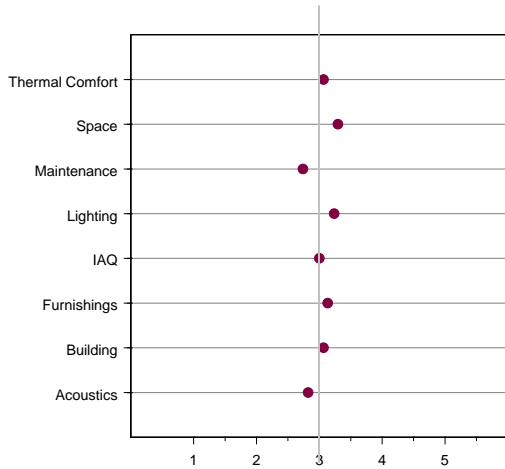
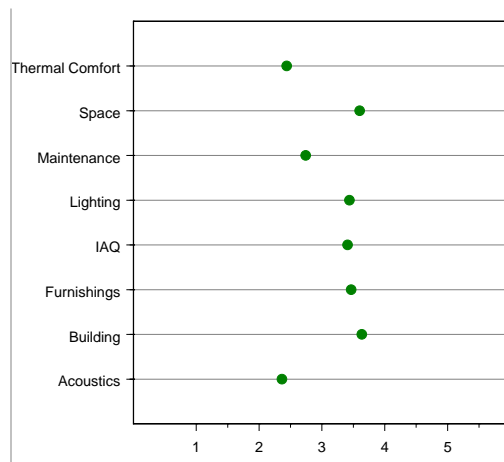


Figure 1. Graph depicting mean response score per indoor ambient air quality category for the pre-occupancy survey.



## Post-occupancy Results

Figure 2. Graph depicting mean response score per indoor ambient air quality category for the post-occupancy survey.

## Select Responses to Open-Ended Questions

Acoustics	<ul style="list-style-type: none"> <li>• The sound proofing between offices is nearly non-existent. When my neighbors phone rings, I think its mine. We can hear each other talk, cough, sneeze, drop things, etc.</li> <li>• Very noisy sound carries and hard to focus or hear on the phone</li> <li>• Sound proofing would have been a great idea in this day and age.</li> <li>• There is little or no sound absorption in the building. It's almost impossible to have a confidential conversation. Things are so loud in my office, that it is sometimes hard to have a conversation on the phone -- with my office door SHUT.</li> <li>• Sound is a major problem, since there are many situations in which private and/or confidential items must be discussed (e.g., advising students).</li> <li>• NOISE!!!!!!!!!!!!!!</li> <li>• Walls are paper-thin. No privacy with respect to noise. THIS IS HORRIBLE!!</li> <li>•!!!!</li> </ul>
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Figure 3. Selected occupant write-in responses about **acoustics** from the post-occupancy survey.

Thermal Comfort	<ul style="list-style-type: none"> <li>• The heat cuts off after 5pm and you can freeze by 8pm. I have a space heater in my office. Some others do too. So much for saving energy.</li> <li>• The heating issue has not been entirely resolved and my office was freezing during the winter.</li> <li>• Nobody understands even yet how the heating works.</li> </ul>
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Figure 4. Selected occupant write-in responses about **thermal comfort** from the post-occupancy survey.

In which area of the building is your area located?:						
	Total	Overall, does the lighting quality interfere with or enhance your ability to get your job done?:				
		Interferes	2	3	4	Enhances
Total	22	2	4	5	8	3
North	13	1	3	2	5	2
South	3	0	0	0	3	0
East	5	1	1	3	0	0
West	1	0	0	0	0	1

Figure 5. Cross tabulation table showing relationships between satisfaction with lighting quality and office location

## REFERENCES

- Clements-Croome, D & Baizhan, L. (2000). Productivity and indoor environment. *Proceedings of healthy buildings 2000*, Vol 1, 629-634.
- Corps, C. (2005, November). *Green value: The profitable environment: Value can make green buildings irresistible*. Paper presented at GreenBuild 2005, Atlanta, GA.
- Heerwagen, J. (2003). Green building benefits: A conceptual framework and emerging evidence. Paper presented at EnvironDesign 6, April 3-5, Seattle, WA.
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- Samet, J.M. (2003). Indoor environments and health: Moving into the 21<sup>st</sup> century. *American Journal of Public Health*, 93(9), 1489-1493.

## **CONCEPT IN DESIGN PROCESS**

**Nilgun Turan, PhD.**

Wentworth Institute of Technology

### **PURPOSE**

Design is a cognitive process from its conception to its development. In this creative activity, the designer's intuition, imagination and conceptualization are complementary to the rational decision-making. Concept, used as one of the regulators of design, helps design to develop in a holistic manner, given that the concept is in constant dialogue with the programmatic requirements and materiality. It also allows the student to see the broader picture beyond mere functionality. This paper explores the impact of concept use in the initial phase of design upon the final design product.

### **METHODOLOGY**

An empirical research which looks onto the correlation between concept as a cognitive faculty and the success of the design among interior design students constitutes this study.

The tested hypothesis is:

-Those that started the design process with a concept or a pre-design form are able to develop the design easier and are more successful than those who start without a concept or a pre-design form. Without changing or interfering with the usual studio operations and without letting the students know about it, the empirical study has been intended to see whether the design students start the design process with a concept or a main idea and develop their design accordingly, and whether there is a correlation, if any, between how they proceed with the design and the evaluation of the final design product. The study, conducted among 30 design students over a two-semester period, and the results of the statistical analysis support the hypotheses.

### **SUMMARY**

The intention of the study is to observe and make propositions in the realm of design education. The goal is not to determine how the design education should be conducted, but rather to explore what factors are useful as design tools for the student. Within this aim, this study is not one that provides rules, but rather one that questions and searches for more effective pedagogical design tools.

## REFERENCES

Finke, R. A., Ward, T. B. and Smith, S. M. (1992). *Creative cognition: Theory, research, and application*. Cambridge, MA: MIT Press.

Goel, V. (1995). *Sketches of thought*. Cambridge, MA: MIT Press.

Lawson, B. (2000). *How designers think: The design process demystified*. 3<sup>rd</sup> ed.; Oxford: Architectural Press (1980).

Turan N. (2002). *Imagination and Concept as cognitive Faculties in design Process*, Unpublished PhD. Thesis. Istanbul Technical University.

## **A Precedent Setting Precedent**

**Steven Davidson**

Kansas State University

The purpose of this paper is to posit the value of a hands-on learning component as 1) a valid basis for comparative study and 2) a unique resource for exploration of innovation and practical application of precedent and potential (sustainable) technology related to design and fabrication of product and furnishing components associated with the built environment. “Back to and ...Nature” in the context of sustainability, implies coexistence, responsible interaction, conservation and utilization of resources so as to preserve and foster the environments natural state of perpetuation. Since designers are more than mere occupants, we assume greater responsibility in creating for human needs and wants in a manner which should place, uppermost, appreciation and education of our constituents. The process of design should integrate a practical skill set with which we actualize, not merely theorize and delegate. Prove what we propose. Build it, improve it, build it again and we are both invested and responsible for design. The underlying impetus is more akin, historically, to independence and self-sufficiency. Both, however, are key components in the mindset of promoting sustainability.

Educational programming geared toward these ideas would seem to be logical and desirable, both for promoting the philosophy and for increasing the relevance of the designer in the future. The title of this paper refers to such a program that began as an idea for a class in the 60’s and became the basis for a course of study distinguished by its technical relationship with the architectural discipline in terms of structure, material characteristics, environmental systems and controls, but distinct in its approach to the evolution of the students’ concept of the envelope.

Imagine a discipline in which the occupant is cast as the primary element in informing the shape of the space, the elements of function and aesthetics which populate that space, the interactive dynamic of other occupants, the resultant façade and virtual extensions beyond. Such an endeavor is ongoing at Kansas State University in the Department of Interior Architecture and Product Design. A five year undergraduate program since 1967, the department became one of the first “Interior Architecture” program recognized for accreditation by FIDER (now CIDA) in 1973 (1). Expanding on a successful curriculum component in the mid 90’s, Interior Architecture received NASAD accreditation as a Product Design program. This was followed in 2006 by the establishment of a Masters of Interior Architecture and Product Design degree and concurrent CIDA accreditation (2).

This came as a response to a recognition of benefits, both to students and the program, of expanding academic rigor at a time of increasing demand by the profession. The first Masters candidates matriculated in spring, 2008

A defining element of the program throughout its history arose from the perceived need of the student to create a tangible product based on individual interpretation as distinct from theoretical solutions. Rarely do students of architecture have the opportunity to go from

concept to actualization of a project. With the introduction of a furniture design workshop sequence, a scalable version of this became possible over the course of a semester. Building in complexity and expectation over subsequent semesters provided for a depth of experience leading to a specialization in furniture design as an option at the graduate level of study culminating in the recently established Masters of Interior Architecture and Product Design. Through a sequence of experience based learning the student advances from a highly structured and constrained introductory course focusing on demonstrating knowledge of materials and processes, tool use, safety etc. to increasingly more complex projects. Further, when a student reaches a level of competency he/she is challenged to push conventions of process. While increasing sophistication and acumen are intrinsic in the design expectations, the traditional notion of “failure” is redefined to be construed as a positive, exploratory attribute.

Trial and error provides vital experience and exposure as experimentation, reiteration and an intrinsic part of design development. This culminates after three semesters in individual programming for graduate theses.

The program is charged with implementation of relevant technologies and of innovative process advancement. New materials, fabrication techniques and finishing have been a part of this mission since the beginning. Consequently, as environmental concerns became part of the public and professional discourse, they entered the course curriculum as any other examples of current thinking. A hallmark of the success and longevity of the program has been student safety. Innovation in this area has been viewed with the same mind set. In an environment which can pose hazards, create the safest interaction. This implicitly establishes and reinforces sustainability as an intrinsic element of the skill set of the student designer.

Tactile knowledge of materials and processes and expertise to manifest concept as finished product whether, literally, hands-on or figuratively through cutting-edge manufacturing processes rely on the aforementioned skill set to provide the expertise in communicating detail and nuance of the kind which define timeless design. Whether through perfecting one’s sketching ability as an effective communication tool or inventing new applications for cutting edge technology, exposure and experience builds a greater knowledge base for informing and improving design process.

As in every design problem, criteria are identified and prioritized. Within a system of creative problem solving, based uppermost on establishing the needs of the client (beginning with his environment), a designer’s breadth of experience and acumen best answers the call for sustainability. Drawing on an educational foundation of experiential learning, currency in materials and processes and their human impact, plus adaptability in their application(s) taps the body of knowledge best positioned to respond effectively as we turn sustainability into a tool of progress.

Graduates recognize that they leave with a unique portfolio. In it they can show not one but several concepts that have become reality. Whether they choose the furniture emphasis or one of the two other specializations currently available under the program structure, all students will have completed the same course work of three semesters in the workshop sequence (3). In this way common benefit can be realized across all areas the curriculum. Through this process all of our students have the opportunity to experience a unique learning environment. We endeavor to help them develop the ability to think creatively and become

skilled in the evaluative process which may provide a means to become selective and adaptive in discerning such areas of knowledge as can combine to represent forward thinking.

The ultimate goal is to provide the necessary tools to stimulate and foster design thinking, develop and actualize to benefit of the greatest number and address the greatest need responsibly...sustainably.

To that end, and for nearly forty years, employers from a diverse cross section of the design professions have demonstrated recognition of the quality and desirability of our graduates by employing a consistently high percentage of those completing our programs of study.

## References

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KSU, "2002-2009 Graduate Handbook",  
<http://www.k-state.edu/grad/current/handbook/Handbook.pdf>, 2-1 to 2-11

**Feng Shui Realities, Myths and Mysteries:  
Interior Design Students' Sources of Information**  
**Anubhuti Thakur, PhD**  
California State University Northridge

Feng Shui is an Eastern art and science based on accomplishing harmony between human beings and their environment (Blum, 2004). Kok Hoo (2007) mentioned that while the Western concept of ecology deals with achieving a harmonious relationship between man and nature, the ancient Chinese culture constantly seeks harmony between Heaven, Earth and human beings. He further argued that translating Feng Shui and other traditional sciences into principles for developing sustainable design solutions is being explored and is fast developing. Feng Shui is rapidly carving a niche for itself in the Western world in a variety of fields, including, but not limited to, architecture, interior design, urban planning, landscape architecture, automobile design (Amato, 2006), and even literature (Plotnik, 2001). Gaeddert (2004) discussed the proposal in California to adopt building codes and standards based on Feng Shui to augment the positive energy in the state.

Clearly Feng Shui concepts are being globally embedded in the design world and design education needs to respond to the same. It is imperative that our pedagogical decision-making visit the place that Feng Shui might have in interior design education. The first step toward teaching our students about the traditional sciences of design may involve understanding their current exposure to such concepts. Where and how do interior design students in the United States acquire their information, insights and ideas about Feng Shui? In that context this research analyzed the exposure of interior design students at a program in the Southwestern United States to Feng Shui and other traditional sciences of design. As part of a pilot study twenty students in the fourth year design studio were asked to complete the survey aimed at understanding the common sources of information for interior design students about Feng Shui. A multiple choice questionnaire was developed with space for students to include additional comments.

The paper will present current trends associated with Feng Shui in the Western society as discussed in literature. The findings of the survey will be presented with suggestions for ways to incorporate Feng Shui into the interior design curriculum to better prepare students for the encounters with traditional sciences that await them in the field.

## REFERENCES

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Gaeddert, J. (2004). San Francisco Legislator Pyshes Feng Shui Building Codes. *Skeptical Inquirer*, May/June 2004, 9.

Kok Hoo, L. (2007). *Sustainable Feng Shui Eco-House*. Paper presented at the 3rd International Conference on Scientific Feng Shui and the Built Environment held in Hong Kong in October 2007.

Plotnik, A. (2001). The Feng Shui of a Sentence: Remove Clutter and Bring Harmony to Your Writing. *The Writer*, 114(10), 10-12.

**Expressions are Endless,  
Unless I Have to Express Them in Nine Design Books**  
**HP Wachter**  
University of Oklahoma

The presented books are the work of the past 15 month finding a place in a multi disciplinary environment in the fields of design and art. Many books have been written about and published of art and design. As an artist I want to relieve thoughts in expression. As a designer I starve in expressions of detail and perfection. My books needed to be abstract to accommodate the notion of thought to be diverse and individual, open enough to give room for individual interpretation. My books also needed to be an expression of detail as I perceive design quality in its detail.

The paper is handmade, the books are assembled by hand in the tradition of ancient book making, where each book went through the process of being created one by one.

The compartments in the book are purposely organized symmetrical. Just like the design process would create a framework that could then be filled by the designer with varieties of expressions by different objects. Each book contains four chapters, the compartments. Each of the compartments is filled with a different design object. The expressions of design in nine books with four chapters each seem endless. The compartments also create the kind of geometry that I see more inherent to design. I use the inside variation of objects to express the potential fluid sensuality of art.

I always have been intrigued to work with the mythical meaning of numbers in my design work as well as the art that I create. The nine design books resulted from my desire to create a media that we designers are comfortable with to inform ourselves about design: the book. The number nine opened an avenue to me of artful as well as mystical interpretation of work that is not design nor art or a hybrid of both, but can be both depending on the perception and interpretation of the audience. Nine is not yet the full or complete, number ten, but it does mark the ending. It is the last of the single digits, in our decimal numbering system. Thus it can represent the conclusion or ending of a matter. Bullinger (1967) also notes that nine has a link with the number six, in that the sum of its factors is six ( $3 \times 3 = 9$ ,  $3 + 3 = 6$ ). Thus nine can particularly represent the conclusion of mans works.

## REFERENCES

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**Wait! Wait! I will have it done tomorrow:**

**Does a major with creative thinking requirements foster procrastination?**

**HP Wachter**

University of Oklahoma

The aim of the present study is to compare academic procrastination tendencies of participants claiming that their major allows for creative thinking with those participants not being able to express themselves creatively. Participants ( $N= 152$ ) participated in a survey measuring decisional, arousal and avoidance procrastination and academic procrastination. The results showed a significant difference between participants with the self claimed creative major and those in majors that do not ask for creative thinking. The study results open avenues on how procrastination can be combated in a creative major and the authors will conclude in suggestions how to help design students to keep procrastination tendencies to a minimum.

### **Creativity and Procrastination**

It has been a phenomenon for years how students in our design studio classes put off design decisions in their lab assignments to the last moment. Don Marquis (1927) wrote "*Procrastination is the art of keeping up with yesterday*". Procrastination today does not have this positive inference anymore and is synonymous with to slack off and is often viewed as humorous (Ferrari et al, 1995). Procrastination research started looking at student population because of the convenience in sampling. Because of the academic nature of procrastination it is labeled academic procrastination. Procrastination in the general nonstudent population is considered chronic procrastination and is divided into decisional, arousal and avoidance procrastination.

All of the three types are prevalent in chronic procrastinators (Ferrari, 2008). Subotnik et al (1999) suggest in a study that people employed in a highly creative field procrastinate uniquely. The present study investigates if students in a highly creative major display higher levels of procrastination in their academic work than those in a less creative field.

### **Method**

Surveys with a multi dimensional approach were given to a convenient sample of male and female. Student and non-student groups ( $N= 100$ ) had equal amount of male and female participants in each group. Race did not play a role in the data collection. Students were enrolled in majors that require creative thinking and cognitive learning (e.g. fine arts, creative writing, architecture, interior design, graphic design vs. biology, zoology, chemical engineering, accounting, meteorology).

#### *Materials*

Surveys included three measuring scales. The scale measuring general procrastination (GP) was developed by Lay (1986). The decisional procrastination scale (DP) developed by Mann

(1982) examines the procrastinatory behavior as it relates to decision making and avoidance and does address the tendency to avoid decisions by doing other tasks. The third scale used in the self report was developed by McCown and Johnson (1989) as the Adult Inventory of Procrastination (AIP) measure.

*Procedure*

Participants that were asked to fill out the self reports identified themselves as chronic procrastinator. The open ended questions in the self report that relate to creativity where coded. Collected data from the self reports was then analyzed using SSPS looking into demographics such as age, gender, occupation and academic major. A T-test generated the Mean, degree of freedom and significance. A factorial ANOVA analyzed the correlation creative vs. skill set.

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# **A Cultural Beacon: Sustaining Multigenerational Relationships and Community Through Design**

## **Amanda Simons**

### **Introduction**

A small interdisciplinary team of student designers met for the purpose of redesigning an existing VFW Hall into a community center for the small rural town of PeEll, WA (population 675). Concern for environmental sustainability was presumed on the part of the designers, but at the interview, it became clear that the project should support multigenerational relationships and community bonding. This broader definition of sustainability drove the design process in programming and concept.

### **Value**

Finding ways to sustain the economy and support multigenerational relationships are vital to the town life of this small town. In the Pacific Northwest, many small towns, just like PeEll have faced declining populations and sagging economies due to the loss of the timber industry. Such challenges threaten to erode the lifestyle integral to small communities. The desire on the part of PeEll's community members to maintain a lifestyle associated with small community living outweighs the challenges they face.

### **Method and Process**

Research of the history of the community, a demographic study, environmental, economic and cultural research prepared the team for a site visit, observation and an open town meeting. At the town meeting, team members facilitated a focused interview and design charrette with community members. Community members shared what they thought a community center should be and what it should do. Community members also had the opportunity to express their ideas in drawings and rough floor plans. Encouraged to give their rough designs a title, the community members asked that their new community center be a Cultural Beacon, attracting all the members of the community for multiple, and diverse activities. Multigenerational relationships are strengthened through design by creating interior space organization and flow that is flexible and integrated, but separate. By providing various seating areas and multifunctional spaces, this new community center serves the broader societal and economical goals of providing the setting for local community engagements and business growth.

At a later date, when the design team reconvened to share perceptions of the community, strong similarities and priorities among the designs emerged. The "Beacon" concept (see Figure 1) provided a means of describing the result of the design. The design team worked independently with occasional feedback from professionals.

The final presentation was created and displayed at a major, annual community event. Because the community members could readily see the concept they articulated, the Cultural Beacon, the presentation was extremely well received by both the community members who had attended the town meeting and those who had not.

# PeEII COMMUNITY CENTER

# BEACON

## primary

historic/cultural character

It is achieved by or expressed through:

- Materials (wood, metal, concrete, glass)
- Maintaining existing elements of the building (stage, elevated library, east side windows, ceiling structure)
- Memorial Wall
- Local Art (quilts and other local art, student and childrens art)
- Indigenous local trees and flowers on the landscape around the building

## secondary

warmth and gathering

- Fireplace
- Open gathering and seating areas by the windows
- Color
- Materials
- Daylight/skylights
- West facade open to the community

## tertiary

the moment

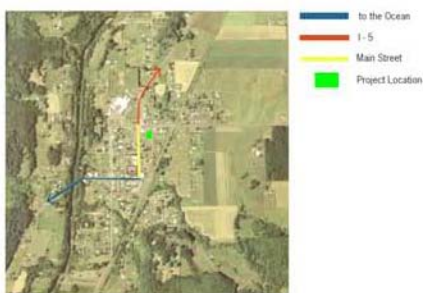
**Moment of time:** see sun dial on the east tower

**Moment of Pe EII:** reaching out to the city, looking at the city of Pe EII through different angles, angled upper terrace makes visual expansive gesture toward the city Pe EII downtown

**Sharing moment:** spaces for many and various events (outdoor deck, outdoor wedding space, indoor social dance and concert area)

**Moments for all generations:** private nook on 2nd floor, teen, children, adult learning areas, creating an interior that all generations can use

Location Map: PeEII, WA



ZONE Diagram

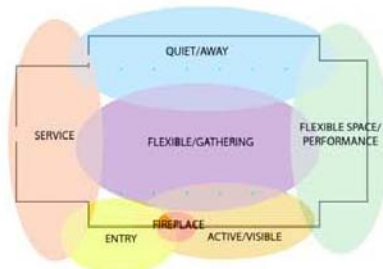


Figure 1 – “Beacon” concept embodies social sustainability.

## **Outcomes**

It is expected that with the new enthusiasm expressed regarding the VFW Hall, the level of social capital within PeEll will be enhanced. This will be observed as community leaders seek grants and other funding for the renovation. We anticipate that the energy and enthusiasm of the community will result in successful fundraising and construction. The presentation will graphically illustrate how the building became a Cultural Beacon for all the generations of PeEll and how it will support the local economy. Drawings, photographs, posters, and videotaped focus groups will explain the process.

## **The Role of Interior Design in Reducing Energy Use in Buildings**

**Judy Theodorson**

Interdisciplinary Design Institute, Washington State University, Spokane

### **PURPOSE**

Global warming, peak oil, and high-energy costs are forcing a commitment to sustainable and responsible energy use in buildings. This signals a paradigm shift in building design, challenging the design team to rethink the how buildings are conceived and created. It is generally agreed that solutions will be multifaceted, taking into account the interactive performance of the many elements of building design and occupation. The concept of “whole building design” has evolved as a holistic vision of integrated design processes (2007). Central to the concept is collaborative teamwork where key stakeholders and the entire design team work together from conception to occupation. Integrated energy design presents the Interior Designer an opportunity and obligation to play a significant role in achieving energy and sustainability goals.

### **FRAMEWORK**

Integrated energy design synthesizes climate, use, loads and systems resulting in a more comfortable and productive environment, and a building that is more energy-efficient than current best practices.(Brown, G.Z., and Cole, J., 2006)

The goal of integrated energy design is to create a built environment that has reduced energy requirements as a result of design interventions. This focus on loads reduction is a deviation from the traditional approach of increasing systems efficiency. The integrated energy design process is open-ended and iterative; multiple design elements are considered interactively in the search for synergistic relationships between climate, use, loads, and systems. (fig.1) Interior design is well suited to contribute to the human side of the equation: the relationship between the user and the building. In this model, there is an emphasis on interdisciplinary design effort early in the design process. Relevant to interior design is the potential in pre-design to coincide program with building organization and climate resources, to harmonize occupancy schedules, and to establish comfort criteria related to people rather than spaces. At the far end of the design process, interior design can prepare the end-user for occupation of a building that relies more on passive strategies than active systems. Along the way, a knowledgeable interior designer can contribute by optimizing the performance of architectural and interior elements.

## **IMPORTANCE TO INTERIOR DESIGN**

In this emergent vision of holistic building design, collaborative efforts around knowledge integration is key to creating high performance built environments. The interior designer is an important voice at the table, focusing on the occupant while integrating the environmental concerns of architecture and interiors. It is important for the interior designer to possess a wide range of knowledge to effectively support the team efforts and to lead issues related to occupancy. Additionally, there is demand for research around issues and patterns of occupancy related to energy use.

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## Appendix

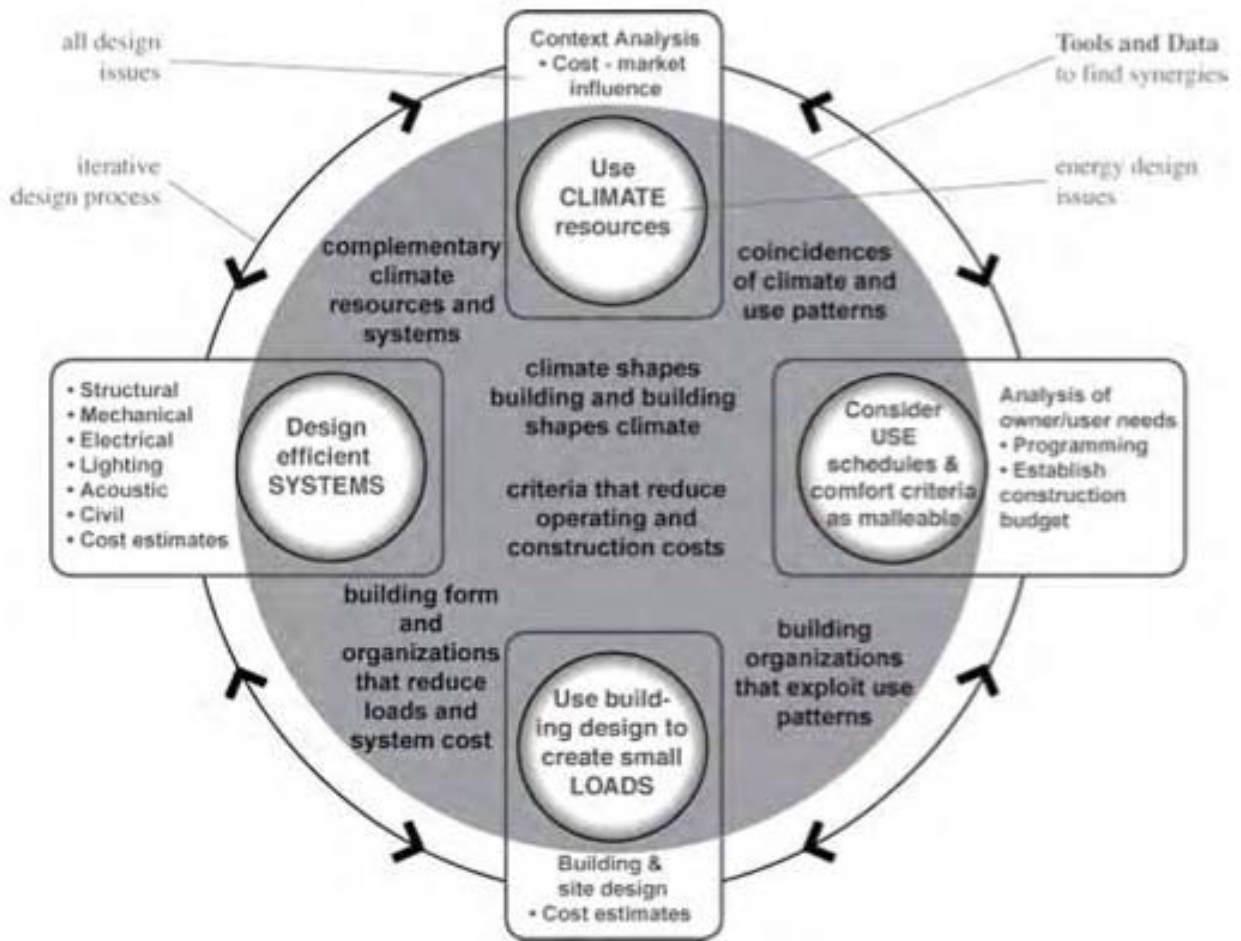


Figure 1: Integrated Energy Design Framework

**Cultivating Culture of Compassion and Caring  
Through Community Service: A Case Study  
Vibhavari Jani Louisiana Tech**

**Introduction**

Since Katrina devastated New Orleans in 2004, major natural disasters have occurred nationally and internationally. With each new calamity, the author wondered what design students could do to assist local community in preparing for future disasters. Inspired by the work of Habitat for Humanity, Rural Studio, and Architecture for Humanity, the author began exploring various opportunities to involve students in providing humane solutions to meet community housing needs during future disasters. The “eureka moment” occurred while the author was driving by abandoned buildings in town: why not renovate these buildings as temporary emergency shelters? It would not only rejuvenate the old, desolate neighborhood, but would also provide space for various other community activities when the buildings were not being used as emergency shelters. Once a facility program is developed for emergency shelters, other cities also can adapt this concept as part of their disaster response plan, thereby be better prepared before the next unfortunate event occurs.

**Purpose**

The purpose of this paper is to share the positive outcomes of a service-learning project the author introduced in the junior interior design studio to create a culture of compassion, and caring. The goal of the project was to promote the value of community service and civic engagement. The students redesigned three abandoned airport hangers to develop temporary emergency shelters for the local community. Implementation of this project was made possible by a \$15,000 grant from a government agency that promotes service-learning experience.

**Conceptual Framework**

The inclusion of community service is relatively a new component in design education. This change requires development of meaningful community service projects that not only provide discipline specific knowledge and skills but also cultivate culture of compassion and caring among design students. The author will discuss the difference between volunteering vs. service-learning, review relevant literature, explain the project concept and context in detail and provide information about project objectives and requirements (see Attachment 1).

**Method and Design Process**

The author will describe teaching methods and tools (see Attachment 2) and the design process (see Attachment 3) adapted for this project. Best practices and innovative ideas introduced will be explained. The author adapted Kolb’s experiential learning theory to provide active learning , reflective observations , abstract conceptualization and active experimentation opportunities to students. Individually and collectively, students performed each of these activities to develop design skills. Students were asked to research, discuss, and adapt appropriate green design strategies in the redesign of all of the buildings.

## **Outcomes and Conclusions**

The author will discuss successful outcomes that students (see Attachment 4 for photos) achieved and the challenges they faced. New approaches adapted for this project will be explained, and challenges the author faced while developing and executing this project will be discussed to assist other educators in developing future service learning and community design projects. The author hopes that sharing this experience will inspire other educators to involve young designers in service learning and civic engagements projects.

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## END NOTES

<sup>1</sup> President Jimmy Carter established Habitat for Humanity.

<sup>2</sup> Samuel Mockbee established Rural Studio at Auburn University in Alabama.

<sup>3</sup> Architect Cameron Sinclair and freelance journalist and documentary producer Kate Stohr established Architecture for Humanity in 1999.

<sup>4</sup> Just recently, Council for Interior Design Accreditation (CIDA) updated the professional standards for accreditation and by 2009, all interior design programs will have to adhere to CIDA professional standard 7 J that requires that “the interior design program provides exposure to the role and value of public and community service.”

<sup>5</sup> Experiential learning theory includes associative real life situations and the use of critical reflection as a learning tool. (Kelly, 1997; Dickinson, 2004.)

<sup>6</sup> Active learning begins with an experience, continues with reflection, and leads to action. (Kelly, 1997; Kolb, 1984; Dickinson, 2004.) Active learning (what Kolb termed concrete evidence) involves direct exposure and interaction to a real-life situation. It provides learning viewed as a practical component of life. (Kolb 1984; Powis 1999; Dickinson, 2004.)

<sup>7</sup> Reflective observations include reflection on the “real-life” experience. Thus, learning

<sup>8</sup>During abstract conceptualization, students draw conclusions about the real-life experiences. (Kelly, 1997; Kolb, 1984; Nussbaumer & Guerin, 2000; Dickinson, 2004.)

<sup>9</sup>In the last phase, active experimentation, those conclusions are tested. (Kelly, 1997; Kolb, 1984; Nussbaumer & Guerin, 2000; Dickinson, 2004.)

<sup>10</sup> For this design project, students were asked to keep a journal for the entire quarter that allowed them to reflect on their active learning experiences. (Kelly, 1997; Dickinson, 2004.) The journal was used as a tool for the reflective observations and provided a medium in which students could think critically about their real-life encounters. Students were asked to conduct a literature review. This tool provided students with the opportunity to sharpen their research skills, find answers and generate ideas or in Kolb's term abstract conceptualization. (Kolb, 1984.) The researched information served as a necessary tool for changing students' perception about impoverished people and neighborhoods.

### **Attachment 1: Project Objectives**

The primary objective of this project was to develop temporary emergency shelters for families who are affected by hurricanes or other disasters that may occur in the future. The project challenged students to utilize abandoned buildings and prepare renovation plans so that funding agencies and professional and community organizations can prepare temporary shelters for these families to stay in for a few days, weeks, or months at a time on an as-needed basis. The author's specific objectives were to:

- Introduce a service learning and civic engagement component in design curricula to create a culture of safety, compassion, and caring.
- Encourage student & faculty participation in disaster recovery and preparedness efforts.
- Establish collaboration with community partners, professionals, & service organizations.
- Create awareness regarding health, safety, & welfare of the disaster-affected community and environment.
- Develop the following skills:
  - Team building and leadership
  - Identification of local community needs
  - Prototype development
  - Verbal communication and visual presentation

**Understanding Native American Architecture  
to Develop Sustainable Environments of Tomorrow  
Vibhavari Jani  
Louisiana Tech University**

**“This we know.  
All things are connected  
like the blood  
which unites one family.....  
Whatever befalls the earth,  
Befalls the sons and daughters of the earth.  
Man did not weave the web of life;  
he is merely a strand in it.  
Whatever he does to the web,  
he does to himself.”  
-Ted Perry, Inspired by Chief Seattle<sup>i</sup>**

**Purpose**

Native American architecture has long been ignored in the Western education curricula. The sad reality is that this indigenous tradition is not valued, and therefore not taught even here in America! The purpose of this paper is to provide information about Native American architecture and its inherently sustainable approach to provide diverse perspectives in design education.

**Context**

According to Nabokov and Easton, (1989), around three hundred tribal groups lived in and built their homes and arranged their settlements according to singular patterns and principles passed on from generation to generation when Christopher Columbus arrived in North America<sup>ii</sup>. Register (2002), notes: “...the pueblos of the American Southwest reflected and served a synthesis of ecological and social needs.....these Old Synthesis Architecture saw the building primarily as part of a whole community embedded in the natural environment.”<sup>iii</sup> The present day cities have lost connection with nature and its community, and face many environmental problems. The modern way of life seems to take us towards the path of destruction. Should we not learn from the ancients to live in harmony with nature and honor the needs of all living beings? This question inspired the research topic of this paper. This examination is effected through personal visits to various sites and personal evaluation, through photographs and the analysis of available research materials.

## **Method**

The author will examine the innate wisdom Native Americans exhibited in design and construction of their buildings, sustainable principles and practices they incorporated, and how ecology, history, and construction technology shaped Native American building forms and interior environments. Significance of social and religious beliefs and how it is encoded into spatial domains will be explained. The setting and structures of the dwellings and its connection with nature will be examined<sup>iv</sup> and how it became “a tangible expression of a way of life<sup>v</sup>” will be discussed. Importance of season changes and how it developed specific architectural patterns will be examined<sup>vi</sup>. Discussion about how native builders adapted various climates, exploited local raw materials, and created comfortable environments that were “responsive as much to the inner environment of cultural presupposition and social interaction as it is to the external environment of wind and water<sup>vii</sup>” will follow. Analysis of the ordered environment Native Americans created and inhabited will be explored to understand their society and its place in the cosmos<sup>viii</sup>.

## **Summary and Conclusion**

The author will discuss what makes Native American architecture significant today. The importance of natural elements, building materials and its effect on the environment and people will be summarized. Finally, the innately ecological, sustainable, and social nature of these buildings and its relationships with nature, people, other structures, open spaces, and the community will be discussed to share the lessons the author learned. The author hopes that sharing this information will generate interest in preserving and teaching the best of the past while still leaving space for the promise to flourish in future.

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<sup>i</sup> As quoted by Capra F., (1996). *The Web of Life: A New Scientific Understanding of Living System*. Doubleday, New York, NY.

<sup>ii</sup> Folklorist Alan Dundes calls these buildings “inherited traditional forms<sup>ii</sup>” and Nabokov and Easton, (1989), believe that these buildings were not meant to make any individual statements and notes: “...their customs were transmitted through oral tradition and learned through repetition. Their traditions were their blueprints; social rules, their building code. They could and did build permanent structures....and in some tribes there was a degree of specialization in building skills.”

<sup>iii</sup> Mr. Register also believes that their cities were well designed and noted that “the clustered pattern of mixed living-and-working habitat was even more compact, as if the whole town were one building of many separate rooms three, four or five stories high.” Architect Davitaia, calls this kind of architecture “...growing out of the earth, assumes the same form as the mountains.”

Register R. (2002). *Ecocities: Building Cities in Balance With Nature*. Berkeley Hills Books, Berkeley, CA. *p. 29*.

<sup>iv</sup> Mr. Register also believes that This community reveals an earth focused and season-conscious cosmology and daily life... Here, too, we can clearly discern a number of signs of the people’s beliefs, values and life orientation.”

<sup>v</sup> Quote by Bernard Rudovsky, an architectural historian, taken from Nobokov P., and Easton R., (1989). *Native American Architecture*. Oxford University Press, New York, NY. *P. 12*.

<sup>vi</sup> Nobokov and Eastor (2002) note that “What appears random or haphazard in old photographs of Indian Camps and villages often actually represents a pattern: the seasonal use of settings for special activities, possibly by certain members of the community. Indians were deeply attached to their architectural patterns, found them practical and enjoyable, and resisted the white man’s attempts to change them. When French advised the Abnaki to exchange their portable dwellings for European-style homes, their chief replied, “Why now do men of 5 to 6 feet need houses which are 60 to 80... do we not find in our dwellings all the conveniences and advantages that you have in yours, such as reposing, drinking and sleeping, eating and amusing ourselves with our friends....”

<sup>vii</sup> Quoted by Nobokov P., and Easton R., (1989) in *Native American Architecture*. Oxford University Press, New York, NY. *P. 12*.

<sup>viii</sup> Notion adapted from Nobokov P., and Easton R., (1989) in *Native American Architecture*. Oxford University Press, New York, NY. *P. 12*.